Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An integrated circuit fabricated on a single micro-chip wafer substrate comprising:

a data bus;

purpose-specific functional units operatively connected to said data bus, said functional units comprising:

a JPEG decoder; and

a printhead interface; and

a general-purpose processor operatively connected to said data bus for controlling said functional units, wherein said processor is operative to run software that coordinates said functional units to receive, expand and print pages.

2. (Original) An integrated circuit according to claim 1, wherein said processor is operative to print pages in streaming mode.

3. (Original) An integrated circuit according to claim 1, wherein said processor is operative to print pages in single-page mode when the size of said received pages exceeds a memory threshold.

4. (Original) An integrated circuit according to claim 3, wherein said memory threshold is 3MB.

5. (Original) An integrated circuit according to claim 1, wherein said processor is operative to transfer bi-level color data to said printhead interface at a constant required rate.

6. (Original) An integrated circuit according to claim 1, wherein said processor is operative to expand pages in real time during printing.

7. (Original) An integrated circuit according to claim 1, further comprising a multi-channel DMA controller operatively connected to said data bus, wherein each of said

functional units further comprises one or more on-chip input and/or output FIFOs, and wherein each FIFO is allocated a separate channel in said multi-channel DMA controller.

8. (Original) An integrated circuit according to claim 7, wherein said DMA controller is operative to interrupt said processor when a data transfer is complete.

9. (Original) An integrated circuit according to claim 1, wherein said printhead interface comprises:

a line loader/format unit; and

a Memjet interface operatively connected to said line loader/format unit; wherein said Memjet interface transfers data to a Memjet printhead.

10. (Original) An integrated circuit according to claim 9, wherein said line loader/format unit is operative to load dots for a given print line into local buffer storage and format said dots into an order required for said Memjet printhead.